a loss for an explanation of their causation. Possibly the cause is some localized interference with blood supply; producing a local anæmia and consequent fatty change.

From a clinical standpoint, this case is interesting, mainly on the account of the fact that the symptoms allowed of such accurate localization. The localization was based upon:

(*a*) Staggering gait, swaying when standing, and finally falling backwards. These point to the cerebellum as seat of lesion.

(*b*) Character of convulsions, tonic spasms, pointing to cerebellum.

(*c*) Irritation of corpora quadrigemina in monkeys produces similar convulsions.

(*d*) Sudden supervention of blindness points to injury of corpora quadrigemina.

Selections.

TREATMENT OF GANGRENOUS BOWEL IN STRANGULATED HERNIA.

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When about to discuss the treatment which should be carried out in a case of strangulated hernia with gangrenous bowel, it is well to note the more usual sites and extent of the gangrenous areas. We may do this by observing the state of the bowel when exposed during operative interference, or by the examination of museum preparations. Femoral hernia, more especially, affords us an opportunity of inspecting good examples of this condition.

In regard to the question of position, it would appear, from a study of the preparations and cases, to which I have had access, that we may find changes of a gangrenous nature situated as follows:—First, on opening the sac, and within it, a projecting knuckle of bowel may be met, gangrenous on its free border. Second, in dividing the constriction at Gimbernat's ligament, a similar condition may be found immediately beneath the point of stricture. Third, on pulling down the dilated vascular gut from out the abdominal cavity, it may be found damaged above the entrance into the sac. Fourth, but rarely, there may be a gangrenous patch on the collapsed portion within the abdomen beyond the sac. It seems that necrosis may occur at any one, or even at all of these points.

If we now remove the bowel, and spread it out so as to expose the gangrenous areas more clearly, we note that, if several be present, they occupy the positions already indicated, and are separated from each other by a distinct interval of comparatively healthy tissue. In regard to the extent of the necrotic change, we may note that the area which lay beneath the constriction is more or less annular in form. It resembles a signet ring, the bezel towards the free convex border of the gut and the ring, more or less eomplete, narrowing and tailing off towards the mesentery.

The patches at the remaining sites are all more or less oval, run in the long axis of the bowel, and lie opposite to the mesenteric attachment. Their extent will naturally vary with the duration and circumstances of the hernia.

As to the treatment of the constricting agent, when one meets with gangrenous bowel in a hernial sac it is evident from what has already been adduced, that it must be divided in order to judge of the condition of the bowel beyond. And in cases where the bowel has already ruptured, a stream of antiseptic lotion may be employed to thoroughly wash away fæcal extravasations, and to disinfect while the stricture is divided.

There is now a choice of treatment. If the gut has not yet actually given way, the surgeon may return it, hoping that within the peritoneal cavity there is still a remote chance of its recovery. Or, again, he trusts to the local paralysis preventing it from straying far from the wound, he hopes that local adhesions and effusion may shut off the damaged gut from the peritoneum, and that if, after all, death of the part should take place, that in this fashion general infection may be prevented, and at the outside only a fæcal fistula ensue. Again he may prefer to stitch the gut to the wound, thus forming an artificial anus. Or, again, he may venture to carry out the more heroic resection of the gangrenous gut, and by suture restore its continuity.

I would venture to add yet another method which, under certain circumstances, might prove highly serviceable. It is, that in place of making an artificial anus, or practising resection, we should close the rupture in the gut, or prevent